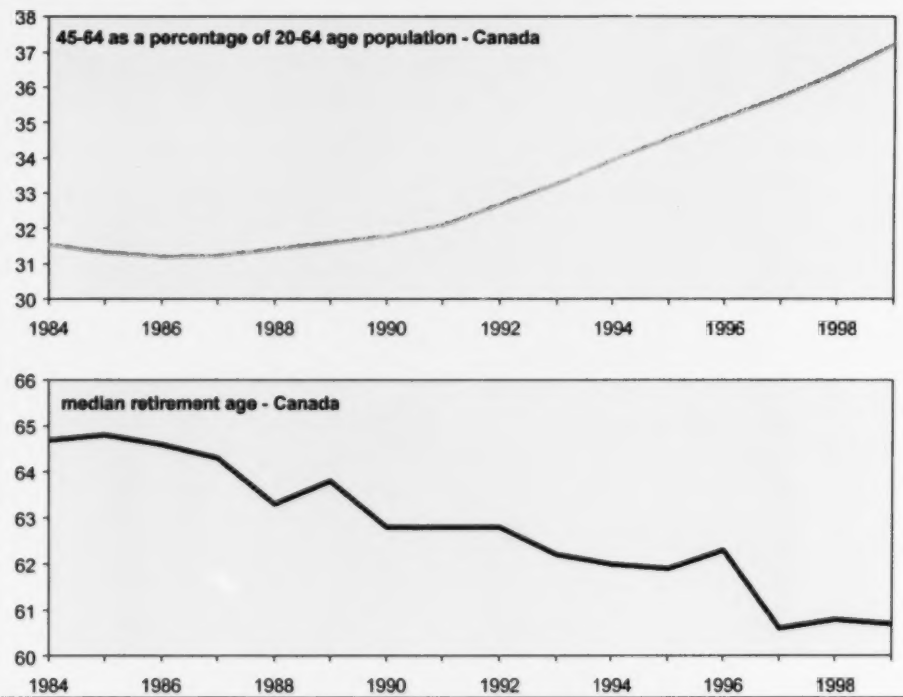
Demographic Profile of the Natural Resources Sector

Part 1 — Introduction

Everyone knows the Canadian population is "aging." And so too is the labour force. In less than a decade, the first of the baby boom generation – born between 1946 and 1965 –w ill begin to reach retirement age. And with the median age of retirement currently at 61, what might mean "freedom" for the current generation of older workers could spell "trouble" for employers in the coming years.

Chart 1
Persons aged 45-64 years old make up an increasing share of the working age population while the age of retirement falls steadily



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Consider the following:

- By 2030, natural population increase is expected to reach zero, meaning that from then on, immigration will be the sole source of population growth;
- As shown in Chart 1, the proportion of persons aged 45-64 years old within the working age population has been increasing over the past fifteen years, from 31.6 % in 1984 to 37.2% in 1999;
- During the same period, the median retirement age has followed a downward trend, going from 64.7 years old in 1984 to 60.7 years old in 1999;
- One issue that is central to the aging workforce is the transfer of skills and knowledge from older, more experienced workers to the younger ones.

This report examines the age profile of various occupational groups within one industry sector. This current-day snapshot of the **natural resources sector** contributes to our understanding of human resource issues that relate to our aging workforce. Most of the data used in this report is derived from Statistics Canada's *Labour Force Survey*.

Part 2 — Overview of Natural Resources in Relation to Other Sectors

A good measure of the impact of an aging workforce is provided by looking at the proportion of older workers in the workforce and comparing it to retirement age. Table 1 below shows that, overall, 5,207 million workers are currently 45 years of age and older, representing 34% of the workforce. Given a median retirement age of 60.7 years (in 1999), it means that a majority of this (large) group of workers will likely be retiring in 15 or fewer years.

For the natural resources sector,[1] the picture is more or less the same. In this sector, 35% of the workforce is currently 45 years and older, representing 106,700 workers. Within this group, 28,100 workers – 9% of the sector's workforce – are aged 55 and older. Given a median retirement age for the sector of 60.8 years, this age distribution implies that a large contingent of these 28,100 workers may be retiring in 5 or fewer years – the 'near retirees'. Over the next 15-year period, employers may be looking at replacing more than 105,000 workers in the sector.

Table 1
The proportion of workers 45 years and older is slightly greater in the natural resources industry than the average for all industries
October 2001*

Industry Sector	*Proportion 45 and older (%)*	*Number 45 and older (000's)*	*Proportion 55 and older (%)*	*Number 55 and older (000's)*	*Median retirement age in 1999*
Agriculture	48	156.1	27	86.6	69.6
Educational Services	44	444.7	13	125.8	56.4
Public administration	43	321.8	9	71.0	57.0
Utilities	40	49.9	6	7.5	57.8
Transportation and Warehousing	40	309.1	13	97.4	60.1
Health Care and Social Assistance	39	602.2	11	163.0	61.8
Finance, Insurance, Real Estate and Leasing	38	328.1	12	107.8	60.0
Other services	36	241.2	14	94.3	61.2
Forestry, Fishing, Mining, Oil and Gas	35	106.7	9	28.1	60.8
Construction	35	309.3	12	104.4	64.9
Manufacturing	35	790.1	10	229.6	61.4
All Industries	**34**	**5,207.2**	**11**	**1,659.9**	**60.7**
Professional, Scientific and Technical Services	33	320.3	12	112.1	65.3
Management, Administrative and Other Support	31	174.4	13	75.3	62.0
Trade	27	654.3	10	231.2	63.0
Information, culture and recreation	27	190.7	8	59.4	58.8
Accommodation and food services	22	208.2	7	66.5	61.0

** does not take into account seasonal variations*

[1] Statistics on the natural resources sector in Parts 1 and 2 of this document include hunting and fishing – which accounted for 8.2% of the sector's employed workforce in October 2001 – while most of the data in subsequent sections exclude these sub-sectors.

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Part 3 — Older Workers in the Natural Resources Sector

The natural resources sector is comprised of establishments involved in forestry and logging, as well as mining, and oil and gas extraction.

- Given that employment in the sector is male dominated (83%), it is not surprising to find that a large majority of older workers and near-retirees are men. One in ten male workers are aged 55 and older and men make up 82% of near-retirees.
- Ontario has the highest proportion of older workers aged 45 and over (46%). By comparison, the Prairie provinces have a relatively young workforce, with 27% of its natural resource workers aged 45 and older. Nonetheless, the Prairies account for the largest share of the sector's older workers (36.2%) and near retirees (38%).

Table 2
Who are they? Where are they?
Older workers and near-retirees in the natural resources sector, by selected characteristics
October 2001*

		Proportion 45 and older (%)	*Number 45 and older (000's)*	*Proportion 55 and older (%)*	*Number 55 and older (000's)*	*Distribution 55 and older (%)*
Natural Resources Sector**		35	95.5	9	23.8	100
Industry:	Forestry and Logging	40	32.4	11	8.7	37
	Mining and Oil and Gas Extraction	32	63.1	8	14.9	63
Gender:	Male	36	81.0	9	19.4	82
	Female	30	14.4	9	4.2	18
Region:	Atlantic	33	8.5	7	1.7	7
	Quebec	40	16.0	12	4.9	21
	Ontario	46	16.8	11	3.9	17
	Prairies	27	36.2	7	8.9	38
	British Columbia	44	18.0	10	4.1	18
Occupation:	Occupations unique to primary industry	36	41.0	8	9.6	41
	Managers and Professionals	36	9.1	10	2.5	10
	Natural and Applied Sciences	23	10.1	3	1.4	6
	Trades, transport and equipment operators	43	20.4	12	5.5	23
	Other	32	14.8	10	4.6	19
Union Status:***	Unionized	43	28.0	8	5.5	30
	Not unionized	30	53.2	7	13.0	70

** does not take into account seasonal variations ** excludes fishing, hunting and trapping ***excludes self-employed*

- The largest occupational group in the sector falls under the broadly defined category of *occupations unique to primary industry*, which includes occupations such as reforestation, skidder operators, drilling, etc. This occupational group accounts for 41% of all workers in the sector, and 41% of all near retirement workers. The youngest occupational group in the sector is *natural and applied sciences*, which includes both professional and technical positions. Within this group, a relatively small proportion (23%) are 45 or over, and just 3% are aged 55 and over.
- Excluding the self-employed, 44 per cent of the sector's workforce is unionized or covered by a collective agreement. Nearly one-half of unionized workers (43%) are aged 45 and over, and 5,496 unionized workers are near-retirement age (55 and over). Rates of unionization vary considerably by age: 26% of workers aged 15-24 and 37% of those 25 to 34 are unionized, compared to one-half of older workers aged 45 and over.

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Part 4 — Implications of an Aging Workforce

During the recession of the early 1990s, older workers – in particular, older men – lost a disproportionate share of employment, as employers attempted to trim payrolls through early retirements. However, demographic pressures arising from an aging workforce and a proportionately shrinking pool of younger workers will undoubtedly diminish the risk of older workers losing jobs involuntarily. As older workers reach retirement age, unprecedented pressures will be placed on employers to recruit new workers, particularly skilled workers.

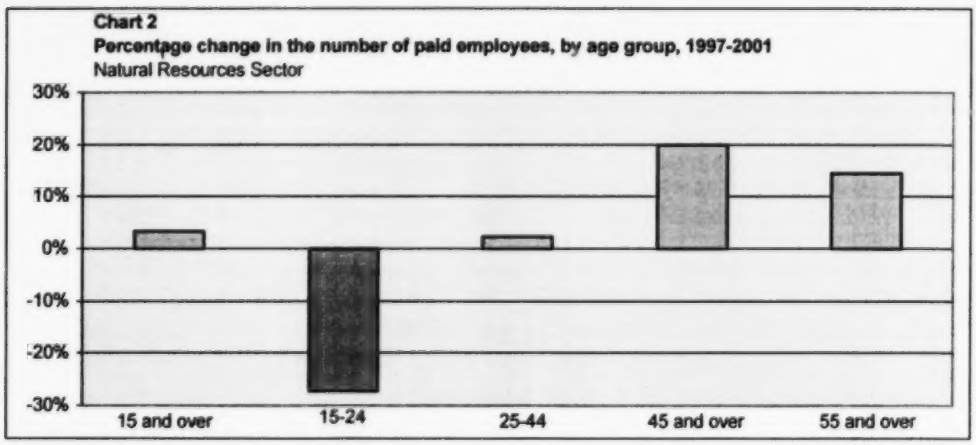
On a positive note, a recent report by Statistics Canada shows that the job vacancy rate in 1999 – the proportion of total jobs that are unfilled – in the natural resources sector stood at 0.9%, which is well below the overall average of 2.6%. These data suggest that, overall, current labour shortages in the natural resources sector compare favorably to other sectors of the economy, although more pronounced shortages may exist for specific occupations.

Recent changes in age structure of employees

As seen earlier, the demographics of the natural resources sector workforce make it clear that such shortages are likely to become more prevalent in the coming years. As baby boomers move inexorably into the older age category, they will leave the labour force in greater numbers. Effective strategies to replace the skills and experience of older retiring workers should consider this longer-term trend.

This trend becomes obvious when one considers trends in employment for the sector (Chart 2). Between 1997 and 2001 (October), overall employment in the natural resources sector grew by 3% or 8,300 workers. However, the number of younger workers under 25 years of age declined by 9,000 (a 27% decrease), while the number of workers aged 25 to 44 increased modestly (2% or 3,400). On the other hand, the number of older workers (45 and over) increased by 13,900 (20%) and near retirees grew by 2,400 (15%).

Chart 2
Percentage change in the number of paid employees, by age group, 1997-2001
Natural Resources Sector



Given the projected shortages of skilled workers, it will become increasingly important to find ways to retain workers. To many employees, the level and quality of training available in a workplace becomes a critical component. In this regard, it will become increasingly important to consider the age structure in any training programs. In programs that focus on skill upgrading of the current workforce, for instance, consideration will have to be given to how the older worker learns. Employers, recognizing that there will be severe skill shortages in the near future, may want to explore innovative ways to retain skilled workers during an economic downturn. This may require the assistance of other partners, in particular governments at the federal and provincial levels. From a recruitment perspective, the importance of this sector in the Prairie provinces also

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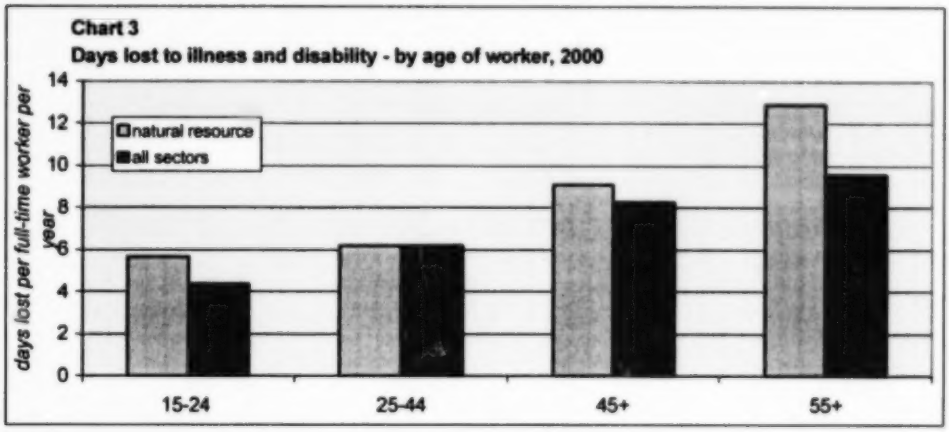
implies that the continuing contribution of aboriginals as a source of skilled workers be recognized and developed.

Illness and disability

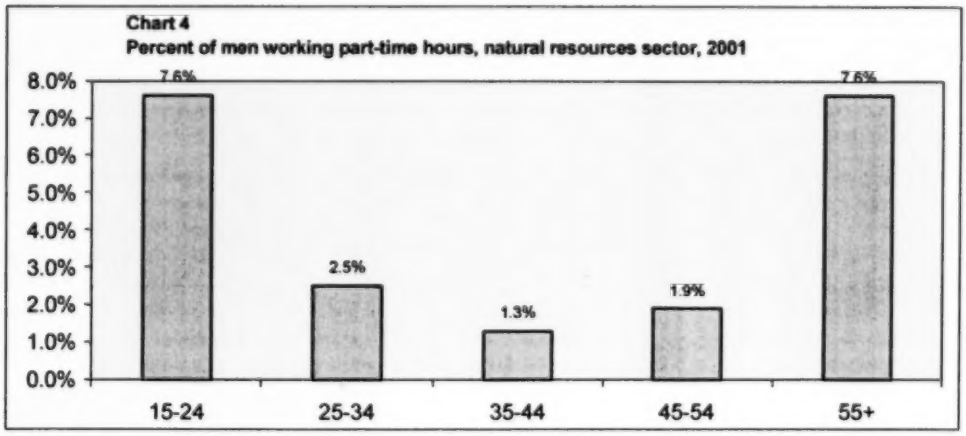
As the workforce ages, the sector can expect greater number of days lost to illness and disability. Indeed, Chart 3 shows that days lost in the natural resources sector exceed that of other sectors, and increase in relation to age. In 2000, natural resources sector workers aged 55 and over lost an average of 12.9 days per year compared to 6.2 days among workers aged 25 to 44.



Given these findings, the current organization of work may be more appropriate for a younger person than for those who are actually in the workplace. The nature of tasks may need to be examined taking into consideration ergonomic principles. Overall, the workplace may need to be adjusted to accommodate the needs and concerns of an older workforce, both in terms of work structure and human resource policies.

Retention issues

Currently, part-time employment is more common among older male workers (Chart 4). Of the 19,400 men aged 55 and over employed in natural resources, roughly 1,500 work part time. Most of these are part-timers by choice (83%) citing 'personal preference' as their reason for working less than 30 hours per week.



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Consideration may need to be given to ways of creating more flexibility in how older workers exit the workforce. One option would be to provide more opportunity for reduced work hours as a phased-in retirement strategy. A slower transition to retirement through a reduced work week could benefit employers insofar as older workers can be used to pass on skills and knowledge to younger workers.

A slower transition to retirement through a gradual reduction in work hours could be of benefit to workers and employers. By doing so, employers would be able to retain the benefit of an individual's experience and skills, all of which could be passed onto younger colleagues in an orderly fashion. Gradual retirement can thus allow for an orderly succession of both corporate memory and necessary skills in the workplace.

Overall implications

Recent consultations done by the Canadian Labour and Business Centre[2] on skills and labour shortages confirm that current and upcoming skills and labour shortages represent one of the most serious challenges facing Canadian management and labour. With respect to the aging workforce, phased-in retirement provisions, mentoring, and more effective formal and informal training have been identified as measures that could help ease the demographic crunch. The utilization of new sources of labour, combined with renewed training and education efforts, will undoubtedly become more prominent in the years to come. Skilled immigrants and the Aboriginal workforce will, in this regard, play an increasingly important and strategic role.

About the CLBC

The Canadian Labour and Business Centre is an independent national labour-business organization whose mission is to contribute to economic growth and social well being by improving business and labour practices in Canada, and by providing joint advice on public policy. Since 1984, we have been the recognized centre for business-labour dialogue and consensus building in the country.

[2] Canadian Labour and Business Centre, *Make Skills a National Priority*, September 2001.

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